

IDF-2™

APPLICATION TIPS

IDF-2 FEATURES AND INSTALLATION

The IDF-2 provides optimal in-space ionization independent of the building HVAC system.

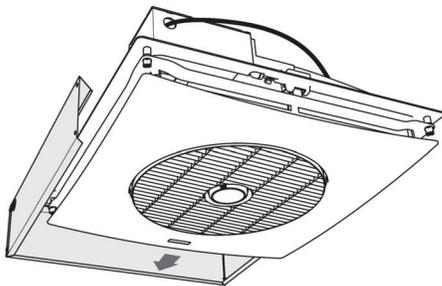
The unit is designed to be fitted into commercial drop/suspended ceiling grid using a standard 24" x 24" tile footprint.

An optional mounting adapter (IDF-CM) for hard ceilings is available, sold separately (shown below).

The IDF-2 will accept 120 VAC - 240 VAC input voltage standard, and can accept 277 VAC when installed with optional GPS LS-277V transformer, sold separately (shown below).

One (1) LS-277V transformer can power up to four (4) IDF-2 devices.

Refer to product datasheet for full list of product specifications and operating conditions.



IDF-CM Hard Ceiling Mount (optional)



LS-277V Transformer (optional)

IDF-2 APPLICATIONS

- Virus/Pathogen Mitigation
 - Classrooms
 - Conference Rooms
 - High Occupancy Areas
 - High Traffic Areas
 - Lobbies
 - Open Plan Office Areas
 - Waiting Rooms
- Odor Control
 - Restrooms/Locker Rooms
 - Trash Rooms
 - Soiled Linen Closets
 - Animal Related Odors
- Destratification
- Spaces not served by HVAC system mounted ionization devices



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IDF-2 PLACEMENT AND COVERAGE ZONES

The IDF-2 provides a coverage area of up to 1,500 ft² *.

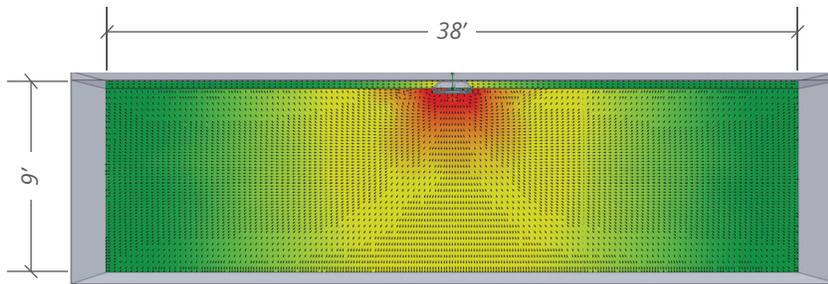
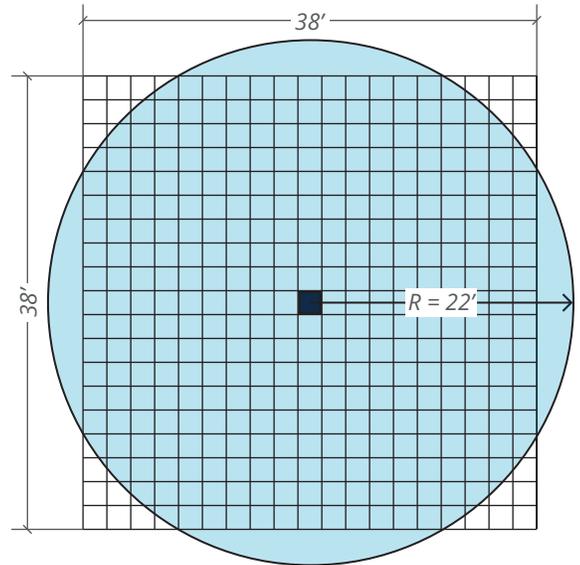
CEILING INSTALLATION MOUNTING LOCATION TIPS

- Centrally locate the IDF-2 within the coverage zone.
- Avoid placing IDF-2 directly adjacent to ceiling supply diffusers or registers.
- Avoid placing IDF-2 directly adjacent to return or exhaust grilles.
- Keep IDF-2 clear of other obstacles such as suspended lighting elements, sound baffles, or any other obstacle that will hinder the throw of the device.

More than one IDF-2 may be required per 1,500 ft² floor area for floorplans that are non-square, i.e. long rectangular or otherwise irregularly shaped.

Consider applying additional IDF-2 devices for spaces with higher occupancy and/or higher contaminant generation rates.

*Note: The standard listed coverage zone guidance is based on the default fan speed setting (fan speed 2) with the IDF-2 installed on a 9 foot ceiling with the HVAC system powered off to create a controlled environment.



CFD Model of IDF-2 Throw based on coverage zone shown above.
(Vertical cut section through room shows average steady state velocity of one full rotation of the diffuser.)

AIRFLOW NOTES

The revolving diffuser provides a radial sweeping introduction of ionized air for optimal in-space ion concentration levels.

Other sources of airflow, such as HVAC diffusers/registers/grilles, will interact with the airflow throw of the IDF-2. The influence from these other airflow sources will affect the distribution of ions throughout the space. Refer to guidance throughout this document for best practices regarding placement of IDF-2 devices in proximity to other airflow sources.

CRITICAL ENVIRONMENTS

GPS does not recommend installing IDF-2 in critical environments where ASHRAE Group E, nonaspirating supply air outlets are required. The throw pattern of the IDF-2 is likely to interfere with the airflow design characteristics of critical spaces defined in ASHRAE 170.

Refer to ASHRAE 170 and ASHRAE Handbook - Fundamentals, Chapter 20, for definitions related to outlet classification and performance.

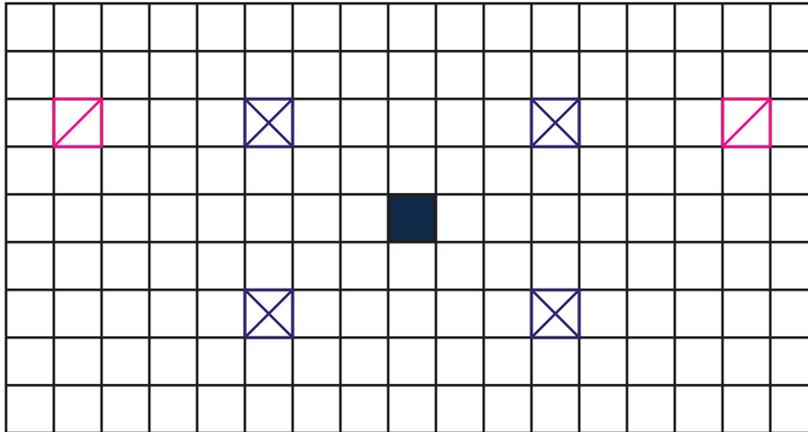
GUIDANCE FOR SELECTING FAN SPEED SETTING

The IDF-2 is pre-programmed to default to fan speed 2 (medium). The fan will utilize this default fan speed setting upon initial power up and upon re-energizing the device after power has been disconnected from the device.

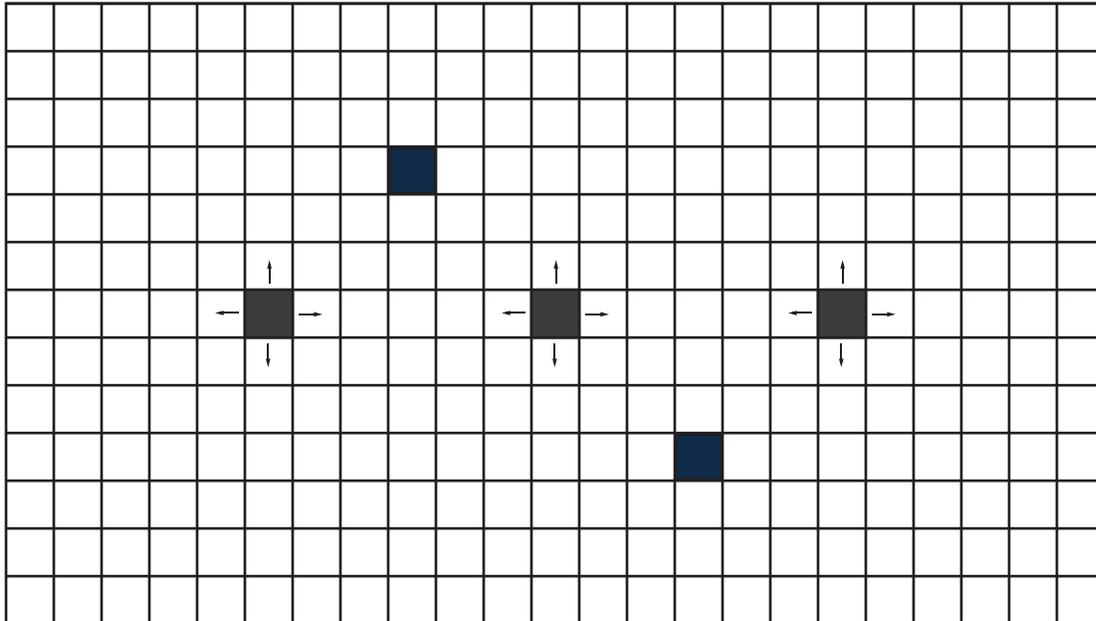
GPS recommends selecting fan speed 3 (high) for ceilings 10 feet - 12 feet in height. Please contact GPS for applications with ceilings greater than 12 feet in height.

TYPICAL INSTALLATION EXAMPLES

Office Building - Conference Room - 612 ft²



K-12 School Classroom - 1,200 ft²



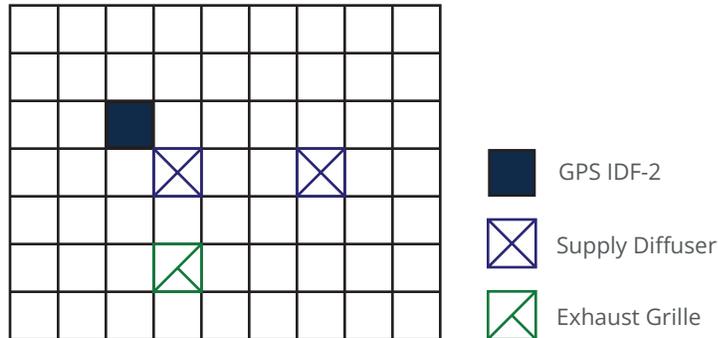
For the latest applicable version of the IDF-2 installation manual, visit www.gpsair.com/downloads or scan the QR code.



IDF-2 FOR ODOR CONTROL

The IDF-2 has been successfully implemented in odor control applications with significant reduction in occupant perceived odors. For odor control applications, the IDF-2 can serve a space up to 750 ft². GPS recommends installing the IDF-2 above or in close proximity to the primary odor generation source.

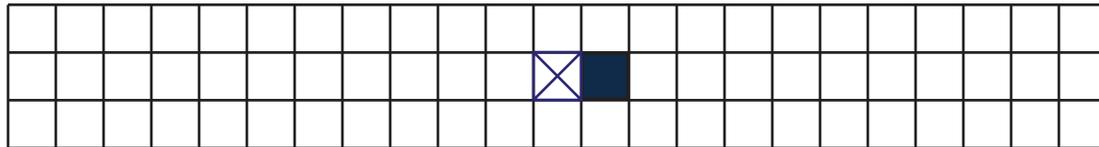
Soiled Linen Closet



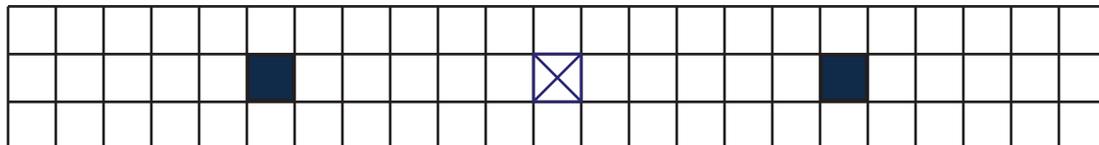
IDF-2 IN LONG NARROW SPACES

When installing IDF-2 devices in long narrow spaces, such as hallways or corridors, one must focus on the IDF-2 maximum throw distance and the effects of any nearby diffusers, rather than the maximum listed coverage area.

Corridor - **Uneven Coverage - Improper IDF-2 Placement**



Corridor - **Even Coverage - Proper IDF-2 Placement**



For IDF-2 product applications not shown here, please contact: techsupport@gpsair.com

